

WHAT IS CLAIMED IS:

1. A sheet processing apparatus, comprising:
a sheet holding portion which stores plural
supplied sheets with upstream edges in a conveying
5 direction thereof aligned;
sheet stacking means for stacking the sheets
discharged from the sheet holding portion; and
sheet conveying means for conveying the sheets
discharged to the sheet stacking means, bringing the
10 upstream edges of the sheets into abutment against a
receiving stopper for receiving the upstream edges to
align the upstream edges, and discharging the sheets
from the sheet stacking means,
wherein the plural supplied sheets are
15 discharged to the sheet stacking means from the sheet
holding portion when a downstream edge in a conveying
direction of a sheet to be supplied last has preceded
the downstream edges in the conveying direction of
the sheets stored in the sheet holding portion by a
20 predetermined amount.

2. A sheet processing apparatus according to
claim 1, further comprising sheet processing means
for applying processing to the sheets stacked on the
25 sheet stacking means,

wherein a subsequent sheet stored in the sheet
holding portion and a preceding sheet stacked on the

sheet stacking means are conveyed together by the sheet conveying means in a state in which a downstream edge of the preceding sheet projects further than a downstream edge of the subsequent sheet by a predetermined amount and, after the preceding sheet has been discharged from the sheet stacking means, the subsequent sheet is stacked on the sheet stacking means.

10 3. A sheet processing apparatus according to claim 2, further comprising control means for controlling the number of sheets to be stored in the sheet holding portion according to a processing time of the sheet processing means.

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 4. An sheet processing apparatus according to claim 2, further comprising control means for performing:
 a first action in a case in which the sheet is an ordinary sheet, the first action including subjecting a preceding sheet stacked on the sheet stacking means to processing with the sheet processing means and simultaneously causing a subsequent sheet to be held in the sheet holding portion and, after the processing of the preceding sheet ends, conveying the subsequent sheet and the preceding sheet together using the sheet conveying

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means to discharge the preceding sheet from the sheet stacking means, and then stacking the subsequent sheet on the sheet stacking means; and

5 a second action in a case in which the sheet is a specific sheet, the second action including not causing the specific sheet to be held in the sheet holding portion but causing the specific sheet to pass through the sheet holding portion to be stacked on the sheet stacking means, processing the sheet
10 with the sheet processing means, and then discharging the sheet from the sheet stacking means with the sheet conveying means.

5. A sheet processing apparatus according to
15 claim 4,

wherein the specific sheet is at least one selected from the group consisting of a sheet with a length equal to or larger than a predetermined length, a sheet for an overhead projector, a color printed
20 sheet, a sheet designated as a top cover, a sheet designated as thick paper, a sheet designated as thin paper, and a sheet with a tab.

6. A sheet processing apparatus according to
25 claim 2,

wherein the sheet processing means is a stapler for stitching a sheet stack.

7. A sheet processing apparatus according to claim 1,

wherein the sheet conveying means comprises a first rotary member and a second rotary member which
5 rotate in contact with the sheets stacked on the sheet stacking means from both sides of the sheets.

8. A sheet processing apparatus according to claim 1,

10 wherein the sheet holding portion holds the supplied sheets linearly.

9. A sheet processing apparatus according to claim 1,

15 wherein the sheet holding portion comprises: moving means for moving the supplied sheets to an upstream side; and an abutment stopper against which the upstream edges of the sheets moved by the moving means are brought into abutment.

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10. A sheet processing apparatus according to claim 3 or 4,

wherein the sheet processing means is a stapler for stitching a sheet stack, and the control means
25 increases the number of sheets, which are stored in the sheet holding means, in proportion to positions to be stitched by the stapler.

11. An image forming apparatus, comprising:
image forming means which forms an image on a
sheet; and

a sheet processing apparatus which applies
5 processing to the sheet on which the image is formed
by the image forming means,

wherein the sheet processing apparatus is a
sheet processing apparatus according to any one of
claims 1 to 9.

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12. An image forming apparatus, comprising:
image forming means which forms an image on a
sheet;

the sheet processing apparatus according to
15 claim 2 which applies processing to the sheet on
which the image is formed by the image forming means;
and

control means for controlling the number of the
sheets to be stored in the sheet holding portion
20 according to a processing time of the sheet
processing means.

13. An image forming apparatus, comprising:
image forming means for forming an image on a
25 sheet;

the sheet processing apparatus according to
claim 2 which applies processing to the sheet on

which the image is formed by the mage forming means;
and

control means for performing:

a first action in a case in which the
5 sheet is an ordinary sheet, the first action
including subjecting a preceding sheet stacked on the
sheet stacking means to processing with the sheet
processing means and simultaneously causing a
subsequent sheet to be held in the sheet holding
10 portion and, after the processing of the preceding
sheet ends, conveying the subsequent sheet and the
preceding sheet together using the sheet conveying
means to discharge the preceding sheet from the sheet
stacking means, and then stacking the subsequent
15 sheet on the sheet stacking means; and

a second action in a case in which the
sheet is a specific sheet, the second action
including not causing the specific sheet to be held
in the sheet holding portion but causing the specific
20 sheet to pass through the sheet holding portion to be
stacked on the sheet stacking means, processing the
sheet with the sheet processing means, and then
discharging the sheet from the sheet stacking means
with the sheet conveying means.